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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/739,789	12/20/2000	Takuya Watanabe	NEC2010-US	3842

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MCGINN & GIBB, PLLC
8321 OLD COURTHOUSE ROAD
SUITE 200
VIENNA, VA 22182-3817

EXAMINER

AWAD, AMR A

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 09/16/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/739,789

Applicant(s)

WATANABE, TAKUYA

Examiner

Amr Awad

Art Unit

2675

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,9-15 and 17-20 is/are rejected.
- 7) ☒ Claim(s) 2-9 and 16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1, 10, 14 and 18 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 3 and 5 of U.S. Patent No. 6,466,186 (Pat-186). Although the conflicting claims are not identical, they are not patentably distinct from each other because by comparing the independent claims of the present invention to the independent claims of Pat-186, we can see substantial similarities between them. For example, the brightness detection circuit of claim 1 of the present application is similar to an arithmetic means for calculating a display load amount of a display cell in claim 1 of Pat-186 because the display load includes the brightness. The charge recovery timing control of the present application is similar to a variable means of Pat-186. Similarly with respect to the other independent claims in the present application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 10, 14 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Shimizu et al. (US patent NO. 6,466,186; hereinafter referred to as Shimizu).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

As discussed above with respect to the double patenting rejection, Shimizu substantially teaches the limitations disclosed in claims 1, 10, 14 and 18 of the present application.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9-10, 11-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Awamoto et al. (US Patent NO. 6,452,590; hereinafter referred to as Awamoto) in view of Minamibayashi (US patent NO. 5,943,030).

As to independent claim 1, Awamoto (figure 1) teaches a drive apparatus for a plasma display panel (col. 6, lines 59-64), and includes charge recovery circuit that re-uses a recovered electrical charge (for that, Awamoto teaches that the driving circuits 27 and 28 have a power recycling circuit for collecting and reusing the power that was used for charging a capacitor) (col. 7, lines 40-49). Awamoto teaches a brightness detection means for detecting brightness so as to obtain screen brightness information (for that, Awamoto teaches a data processing system (23) includes a memory having a gradation information (brightness information) to be supplied to the driving circuit 28) (col. 7, lines 23-37). Awamoto teaches a charge recovery timing control means for controlling the charge recovery period from a time which a charge recovery operation of the charge recovery starts to the time of fixing to a sustaining potential (for that, Awamoto teaches that the power recycling circuit 33a in figure 4 includes 2 inductors 51 and 52, the inductance values can be out of the range depending on the design giving a high priority to the charging and discharging time or the power recycling ratio) (col. 9, line 66 through col. 10, line 23). This is clearly showing that the time of recycling is varying and can be controlled.

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Awamoto does not expressly teach that the recovery time control means controls the charge recovery period in response to the brightness information obtained by the brightness detection means.

However, Minamibayashi (figure 3) teaches a plasma display panel and a power recovery circuit, wherein the timing of the recovery period is controlled (i.e., varies) based on the controlled means (col. 10, lines 13-21, and col. 12, lines 52-56).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the teaching of Minamibayashi having a controlled timing period for charge recovery to be incorporated to Awamoto's device so as motivated by Minamibayashi, to be able to recover and reuse the electric charges applied during the data recover period, and since the data is variable, the timing of recovery has to variably controlled (col. 3, lines 62-67)..

As to claim 9, Awamoto show power supply (25), such supply usually indicates the amount of power to be consumed in certain time, which broadly reads on the limitations power consumption measuring means in claim 9.

As to independent claim 10, the method of claim 10 is corresponding to apparatus claim 1 and is analyzed as previously discussed with respect to apparatus claim 1.

As to claim 11, it is known that the brightness of a display is the brightness of each pixel in the display area (see Col. 7, lines 18-22).

As to claim 12, the claim is similar to claim 11 above, by considering that the pre-established pixels of claim 11 are each pixel in the effective display area of the plasma display.

As to claim 13, using the broadest reasonable interpretation of the claim, we can fairly see that in Awamoto's device, if the accumulating brightness is high, the time for recovery will be longer (col. 14, lines 1-9).

As to claims 14 and 18-19, the claims are a broader version of independent claims 1 and 10, and are analyzed as previously discussed with respect to claims 1 and 10.

As to claim 15, Awamoto teaches an accumulator for accumulating a brightness of each pixel (col. 7, lines 18-22).

As to claim 17, it is known that the brightness of a display is the brightness of each pixel in the display area (see Col. 7, lines 18-22).

As to claim 20, using the broadest reasonable interpretation of the claim, we can fairly see that in Awamoto's device, if the accumulating brightness is high, the time for recovery will be longer (col. 14, lines 1-9).

Allowable Subject Matter

6. Claims 2-8 and 16, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

As to claims 2-5, 8 and 16 none of the prior art of the record either singularly or in combination, teaches or fairly suggests a plasma display panel that includes among other features, an image signal accumulator for accumulating the brightness of each pixel, and an accumulated value comparator for determining whether an accumulated valued detected by the image signal accumulator is larger or smaller than a prescribed value.

As to claim 6, none of the prior art of the record either singularly or in combination, teaches or fairly suggests a plasma display panel that includes among other features, having the charge recovery timing control means controls to change the charge recovery period for only a sub-field that has relatively large brightness weight, and leave the charge recovery period that has relatively small brightness weight.

As to claim 7, none of the prior art of the record either singularly or in combination, teaches or fairly suggests a plasma display panel that includes among other features, counting the number of pixels of a brightness exceeding pre-established reference brightness.

Response to Arguments

7. Applicant's arguments with respect to claim1, 3-7, 9-15 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Amr Awad whose telephone number is (703) 308-8485. The examiner can normally be reached on Monday-Friday, between 9:00AM to 5:30PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Saras can be reached on (703) 305-9720. The fax phone numbers for the organization where this application or proceeding is assigned are (703)872-9314 for regular communications and (703)872-9314 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

A handwritten signature in black ink, appearing to read 'Amr Awad', with a stylized flourish at the end.

A.A.

September 8, 2003